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(54) Title: AMPLIFICATION-BASED CARDIAC ASSIST DEVICE

(57) Abstract: Apparatus (20) is provided for compressing at least one ventricle of a heart (40). The apparatus includes a plurality of inflatable elements (64) and a pump (24) in fluid communication with the inflatable elements. At least one band (68) is in mechanical communication with the inflatable elements. A portion of the band is adapted to be placed around at least a portion of the heart in mechanical communication with the portion of the heart. The inflatable elements are arranged such that when the inflatable elements are inflated by the pump, the inflatable elements apply more force to the heart via shortening of the portion of the band than via expansion of the inflatable elements against the heart.